

CLAIMS

Electromagnetic contactor for an electric starter motor, said contactor (CT) comprising:

connection terminals intended for connection to the battery and to the electric motor (M),

a movable core (18),

a main stationary core (10),

an axial air gap provided between the movable core (18) and the main stationary core (10),

a tubular coil (22) to produce a magnetic current in the air gap provided between the movable core (18) and the main stationary core (10) during excitation,

a magnetic circuit provided with a case (11) constructed with magnetic frame attached to the stationary core (10),

an insulating cap (14) enclosing the contacts (25, 26) of the electric power circuit and having connection terminals (20) intended for connection to the battery and the electric motor,

said case (11) being composed of a metal bell-shaped housing (15), an internal ferrule (16) made of magnetic material surrounding the coil (22), and a washer (17) acting as an additional stationary core through which the movable core (18) passes, and arranged opposite the main stationary core (10),

characterized in that the metal housing (15) of the case (11) comprises an annular rib (21) extending continuously opposite the cylindrical periphery of the main stationary core (10), said rib having an internal diameter (D1) respectively greater than that of the ferrule (16) and smaller than that of the housing (15), so as to ensure the locking of the different parts of the case (11).

2. Contactor according to claim 1, characterized in that the rib (21) ensures the locking of the different parts of the case (11), as well as the crimping of the housing (15) on the stationary core (10) following local deformations exerted on the reduced diameter of the swaged part defining the rib (21).

3. Contactor according to claim 2, characterized in that the main stationary core (10) is provided with radial cavities (13) in which serrations (12) produced by the crimping are embedded.

4. Contactor according to claim 2, characterized in that the cap (14) includes at least an axial stud (27) intended to engage in a notch of the stationary core (10) during assembly of the cap on the end of the housing (15).

5. Contactor according to claim 4, characterized in that the notch that receives the stud (27) is the same as a cavity (13) of the stationary core (10).

6. Contactor according to any of the preceding claims, characterized in that serrations (12a) are made after assembly on the end of the housing (15) to immobilize the cap (14) from rotation.